Project No. W-____-____-

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER
TECHNICAL REVIEW FORM

CHLORINATION
(N.J.A.C. 7:10-11.16)

_____	_____	_____
Water Purveyor	PWSID#	Municipality

Type of Chlorination: ❒ Gas ❒ Hypochlorite ❒ Other:

Make and Model of Feed System: _____ Capacity:
Control of Operation: _____ Design Chlorine Residual:

Chlorine Contact Time: _____ minutes provided via

	YES	NO	N/A
General Information			
1. Is chlorination the last form of treatment?	❒	❒	❒
2. Is the chlorine treatment system designed to provide sufficient disinfection of the water within the treatment plant with one treatment unit out of service?	❒	❒	❒
3. Is a comparator suitable for determining chlorine residual by the D.P.D. method in accordance with Part 4500CL-G of Standard Methods for the Examination of Water and Wastewater and supplies of the necessary reagents provided for measuring chlorine residuals?	❒	❒	❒
4. Is a room heater provided?	❒	❒	❒
5. If ammonia is added in conjunction with chlorine for chloramine disinfection, is the ammonia treatment separated from the chlorination system so that the ammonia and chlorine gases do not mix?	❒	❒	❒
Chlorine Contact Time			
1. Are the chlorination facilities designed to produce the following minimum chlorine residuals based on the pH level:	❒	❒	❒

pH level	Available Chlorine Residual (ppm)	
	Free	Combined
Up to 7.0	0.2	1.0
7.0 to 8.0	0.3	1.5
Over 8.0	0.4	2.0

	YES	NO	N/A
2. For chlorination facilities which treat ground water sources, is a minimum chlorine contact time of 5 minutes provided to produce the above required free chlorine residual or 30 minutes to produce the above required combined chlorine residual?	❒	❒	❒
3. For chlorination facilities which treat surface water or ground water under the direct influence of surface water, is a minimum chlorine contact time of 30 minutes provided to produce the above required free chlorine residual?	❒	❒	❒

Gas Chlorinators

1. Is the chlorination system of the solution feed type?	❒	❒	❒
2. Is the chlorination system located in an above-grade separate room with an outside entrance only?	❒	❒	❒
3. Is the chlorine room equipped with proper ventilation including an exhaust fan located near floor level with an outside switch?	❒	❒	❒
4. Is the chlorine room equipped with an outward opening door with panic hardware (i.e. pushbar on the inside of the door)?	❒	❒	❒
5. Is an automatic chlorine leak alarm or an observation window to facilitate visual inspection of the chlorine room without opening the door of the chlorine room provided?	❒	❒	❒
6. Is an ammonia solution available for testing chlorine leaks?	❒	❒	❒
7. Are a minimum of 2 chlorine cylinders interconnected by a manifold and valved to permit rapid changeover provided?	❒	❒	❒
8. For those facilities which do not have 24 hour supervision, is an automatic switchover valve provided?	❒	❒	❒
9. Are scales provided for determining the weight loss in each chlorine cylinder?	❒	❒	❒
10. Is the water supplied to the chlorinator protected against backsiphonage?	❒	❒	❒
11. Is the rotameter properly sized to prevent abnormally high chlorine application? Rotameter capacity:	❒	❒	❒
12. Is a gas mask stored in a readily accessible location provided?	❒	❒	❒
13. Is an automatic chlorinator with chlorine residual recorders and an alarm system to indicate chlorine failure provided for surface water systems and			

systems which do not meet State microbiological standards?	❒	❒	❒

	YES	NO	N/A
Hypochlorinators			
1. Has a Technical Review Form for Chemical Handling and Feeding been prepared for the chlorine feed?	❒	❒	❒
2. Is a positive displacement type pump used?	❒	❒	❒
Ozonators and Chlorine Dioxide Generators			
1. Is post chlorination via gas chlorine or sodium hypochlorite provided?	❒	❒	❒
2. Is equipment used for ozonation durable and corrosion resistant?	❒	❒	❒
3. If chlorine dioxide is used, is sodium chlorite injected into the discharge line of the solution feed chlorinator with the formation of chlorine dioxide in a reaction chamber?	❒	❒	❒
4. Does the maximum chlorine dioxide feed rate exceed 1.5 mg/l? Maximum feed rate:	❒	❒	❒
5. Is each chlorine dioxide generator at least 95% efficient in producing chlorine dioxide?	❒	❒	❒
6. Is a comparator suitable for determining chlorine residual by the D.P.D. method in accordance with Part 4500-C102D of Standard Methods for the Examination of Water and Wastewater and supplies of the necessary reagents provided for measuring chlorine residuals?	❒	❒	❒

***Submit appropriate engineering plans, specifications, reports, etc. to substantiate your answers. ***

I hereby certify that answers provided herein are accurate and reflective of the project being considered for approval.

Signature of Engineer Date N.J.P.E. #
Professional Engineer's Embossed Seal

Type or Print Name of Engineering Firm